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MANCHESTER | URBAN DESIGN | LAB

MUD-Lab Toolkit
Historical Analysis

Understanding the history of places is an essential part of contextually responsive urban design. Our cities are by large shaped by their history which should be explored by conducting historical analysis. This is a short handout about historical analysis. It will introduce you the concept, why and how to use historical maps, how to obtain them from Digimap and Google Earth and how to prepare them for analysis.

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The MUD-Lab Toolkit

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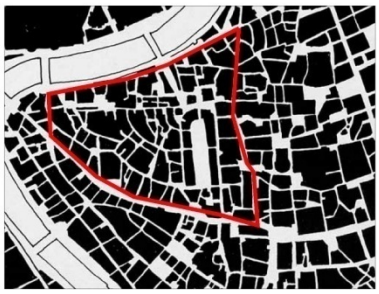
1. INTRODUCTION

Historical evolution analysis is often conducted by urban designers to understand the history of the site under study, and how the place has evolved over time. Many factors affect how the space evolved including social, political and economic circumstances. It is very important to understand these various events and how they affected the space physically. This is usually conducted via a thorough exploration of the historical context, media reports, previous planning policies…etc. A key starting point is creating historical evolution map/s. Illustrations consist of a sequent of maps from earlier periods, usually to scale in addition to infographics to communicate textual information. This historical contextual analysis aims to observe the changing urban character of the landscape, the relation of built form to open spaces and how urban patters changed, the main aims behind this study is to understand: ***what caused this change*** and to evaluate ***how this might inform design***.

The changing urban form can usually explained by social, economic and political conditions that add to the contextual analysis of your site. So it is not simply an array of images that show old maps, but a background that widen your knowledge about the place. You need to ask yourself:

- ***How far*** should I go back in time in this study? Unless there are some key older historical events you want to discuss, this is usually between 20 to 60 years.
- ***How was the place evolved*** over time? Show that via maps, statistics, tables..etc. Use appealing infographic to communicate your textual parts.
- ***What were the conditions that caused this evolution***? This is when you start exploring the historical context of the area that caused the evolution of the urban form.
- ***What are the conditions now?*** While exploring the history is essential, it is a key to understand how the history has created the exiting condition?
- ***And how can my design be informed by the site history?*** For example, are there any sensitive social, political or environmental issues that need to be considered based on the historical study?

2. A BASIC EXAMPLE



Before 1960

from 1965 to 1994

Since 1994

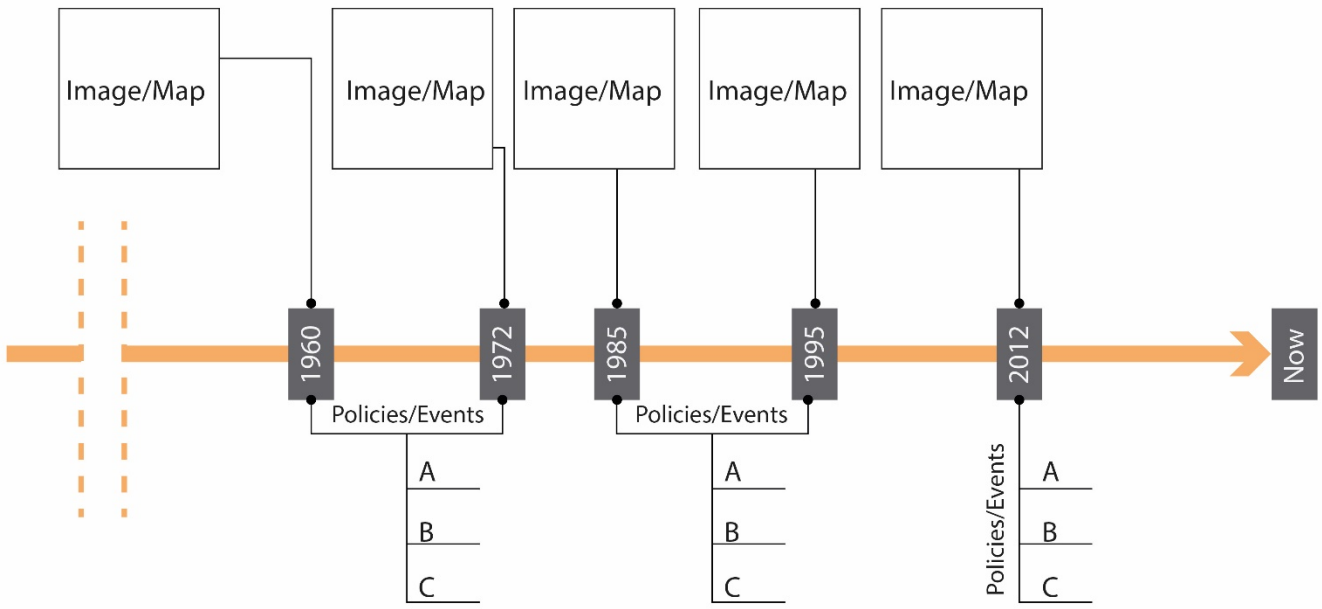
- The site used to be an organic neighbourhood before 1960, with a distinct urban character. It used to be well connected to the surrounding neighbourhoods.
- The higher rate of population and the spread of modernism discourse had great effect on the site during the 1960s.
- It was transformed to a modernist style towers in 1965.
- This was accompanied by a higher crime rate, poor social relations, and deterioration of the quality of public spaces. This was arguably caused by the newer scheme.
- Physically, the site became completely detached from the surrounding area.
- The development became deprived and unappealing compared to the surrounding sites which still preserve their historical character.
- Buildings were demolished in 1994, and the site has been vacant since then.
- My new proposal is going to take the previous matters into consideration based on the current and the historical context.

The analysis can focus on the city scale to understand broader issues, or on larger scales to understand the neighbourhood or the site context. It can focus on policy issues, transport, movements, accessibility, building patters, character, density, open spaces...etc. The most important thing is link it to your design intervention.

3. USING INFOGRAPHICS

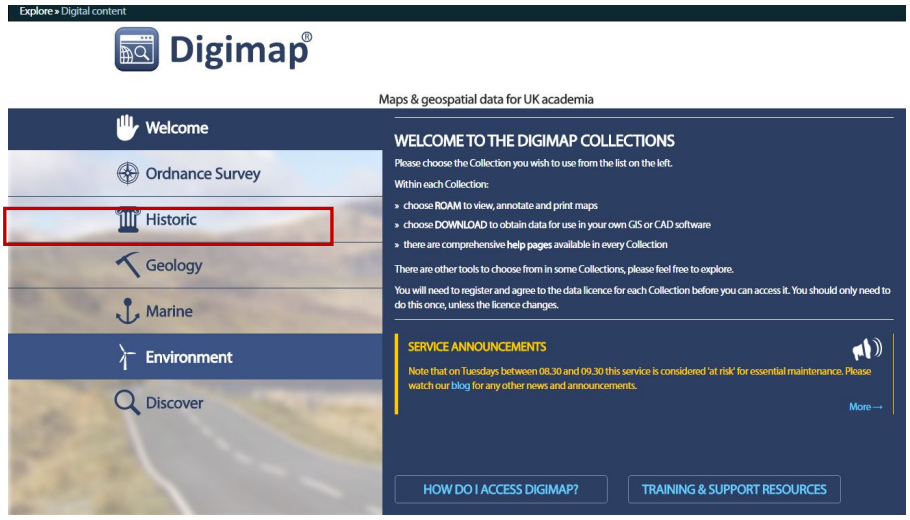
Infographics are the graphical representation of data/knowledge to represent information quickly and clearly. They are about the classification/ division and simplification of information, showing relationships between different pieces of information. To create them we use shapes, colours, size and text all of carefully selected location and hierarchy. You will be introduced to infographics and how to create them in 3 dedicated sessions in Applied Skills throughout the year. Below is a basic example on how you might want to present your textual historical events using infographics.

The example bellow shows a time-line style infographic to showcase some key historical events/policies in the area. Adding images/maps to the timeline would make the illustration more appealing and informative. Use relevant maps and photos that reflect the area condition. There are unlimited way to visualize text, and these kind of infographics, in addition to the historical evolution map, can create a very informative piece of historical analysis.



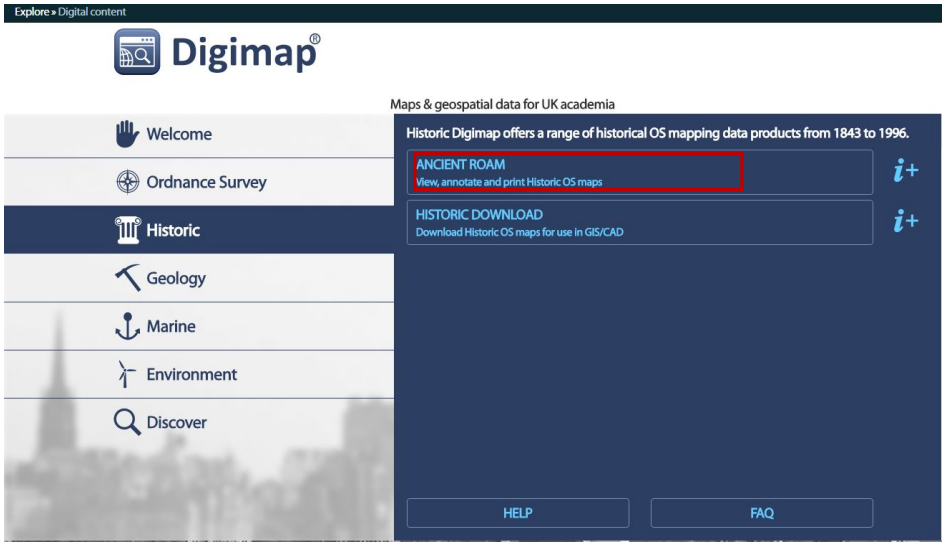
3. HOW TO OBTAIN HISTORICAL MAPS FROM DIGIMP

You need to register in Digimap Ancient Roam in order to get access to the Historic maps. Please refer to Digimap handout to learn how to register.



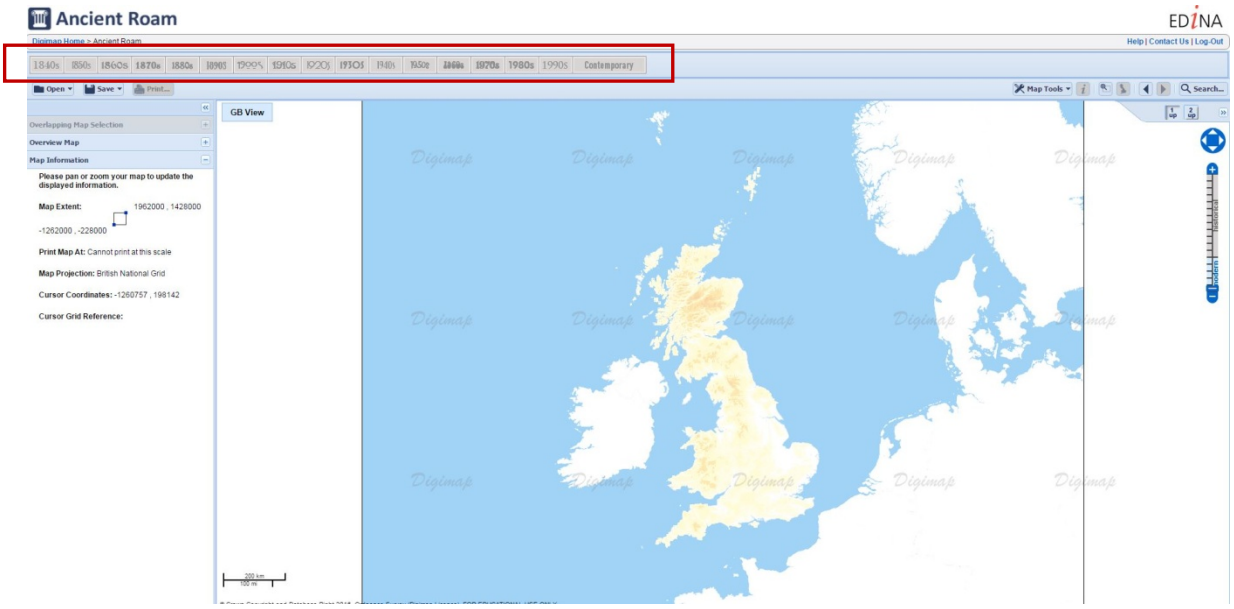
1-Go to Digimap website and select ***Historic***

2-Select ***Ancient Roam***

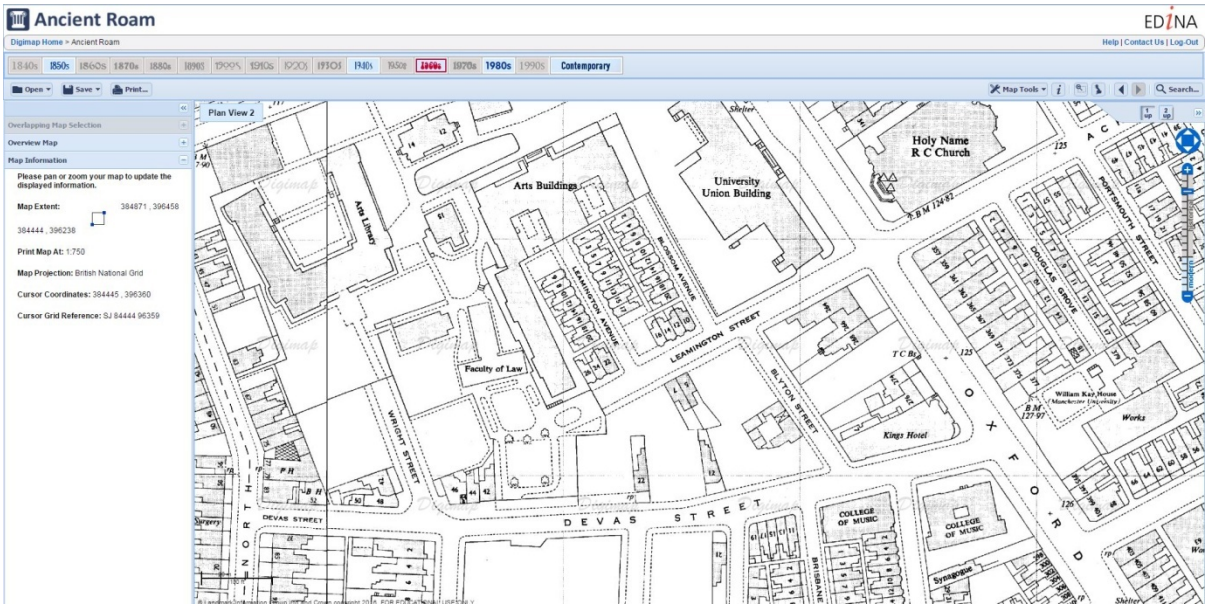


3-Select your institution (University of Manchester) and log in with your university username and password. You will end up with the screen below.

The screen is pretty much similar to the Roam screen. The main difference is the timescale bar. This allows you to select the relevant historical points.



4- Entre the University of Manchester post code (M139PL) and see how the site evolved over time. Notice that maps availability differs from site to site and from scale to scale.



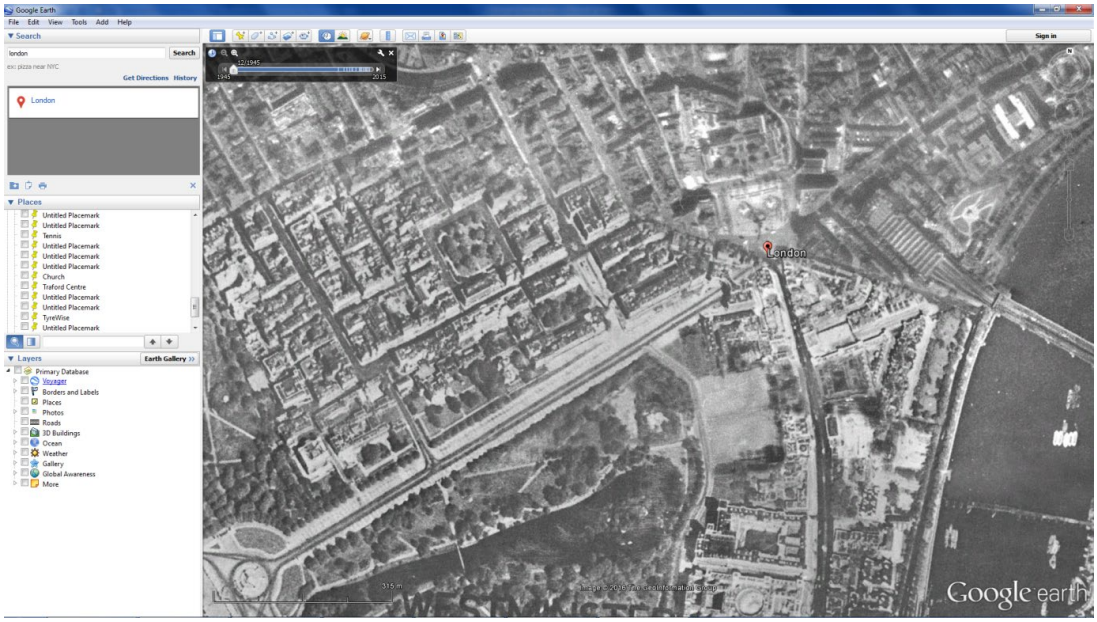
5- Download the map from the ***Print*** tool.

Note: Do not present every single historical map available for your site. The ***Only*** maps you want are the informative maps that contribute to your story.

4. HOW TO OBTAIN HISTORICAL MAPS FROM GOOGL

If you do not have access to Digimap, Google earth can provide a lower quality source for historical maps. However, the time scale is more limited especially in the small cities in which the earliest year you can get is the year 2000. But it can still provide some useful maps to describe the recent history of the site.

From the toolbar, select ***View/Historical Imagery***. You will get a timescale to select the year you want. In London case, you view images from the year 1945. In Manchester, however, the earliest year you can get is the year 2000.



Save the map: ***File/Save/Save Image***

5. PREPARING THE MAP FOR ANALYSIS

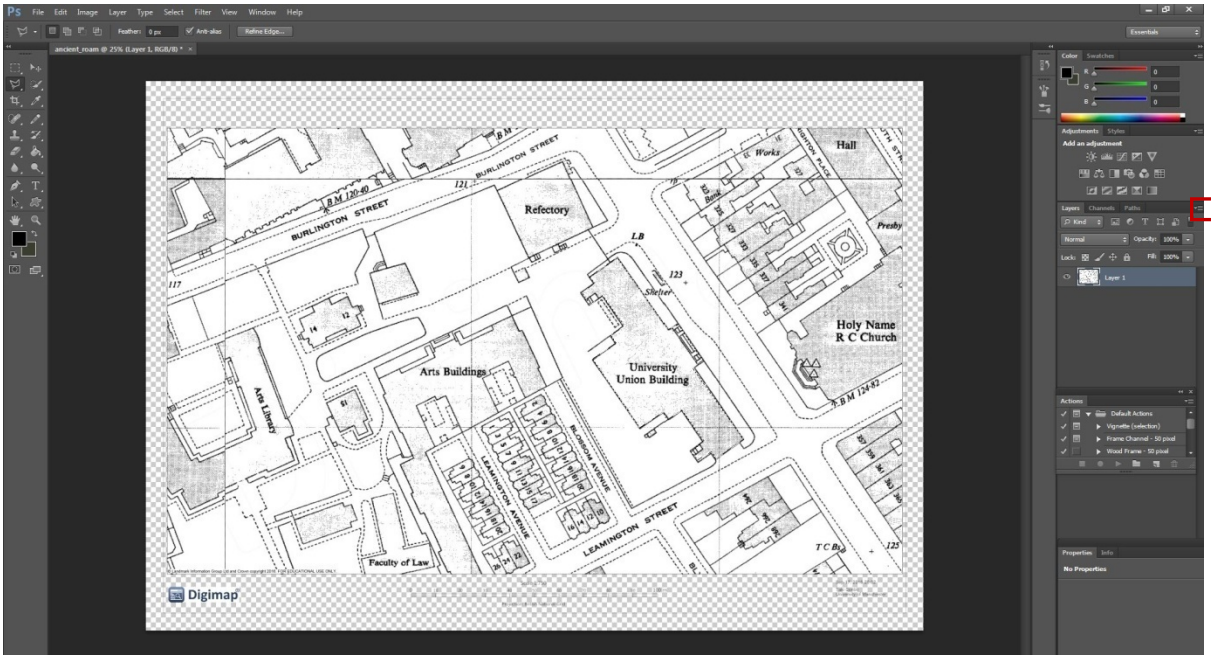
Just like any basemap, historical maps need to be properly modified to convey the message you want. The main problem with Digimap historical maps is that they are raster images, rather than vectors. This means they are pixel based and so you need Photoshop to manipulate them. You can always trace and highlights buildings in Ai, however, In this

section you will learn how to create a figure ground from a historical map using Photoshop and then how to highlight a building. Please refer to Photoshop handout for detailed tutorials.

To create a figure ground, follow the following steps

1- Open Photoshop and drag the downloaded map into the screen.

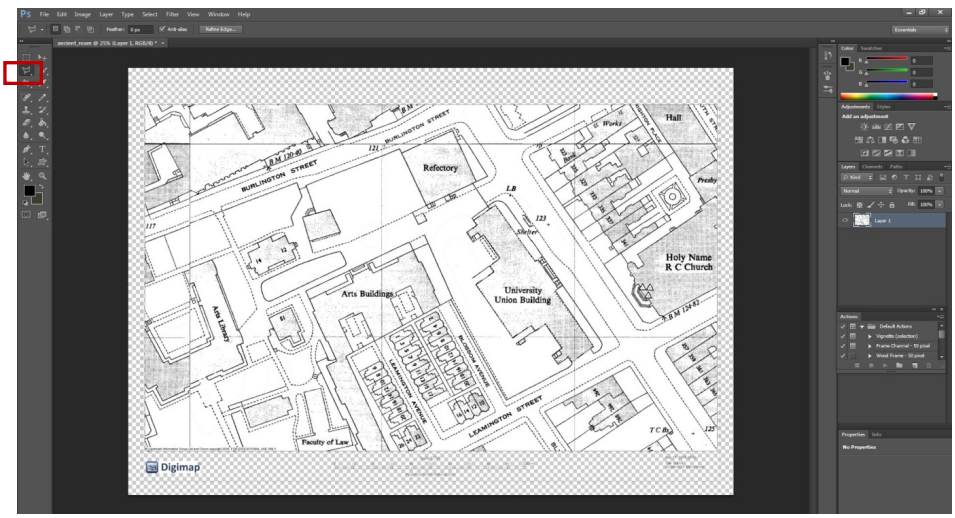
2-From the Layers panel, duplicate the base layer, then select the new layer.



3- Select the ***Polygonal Lasso*** tool

4- With the ***Lasso*** tool, trace a building boundary line.

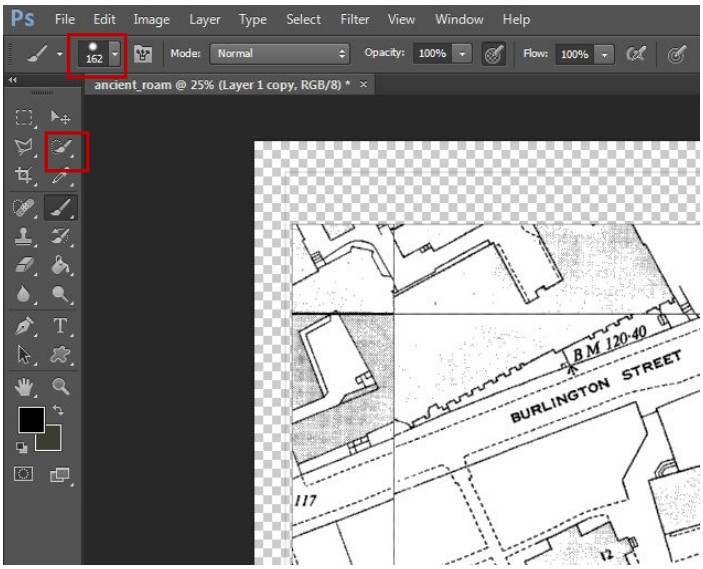
Note: We are using this method as the **Magic Wand** might be less efficient with these low



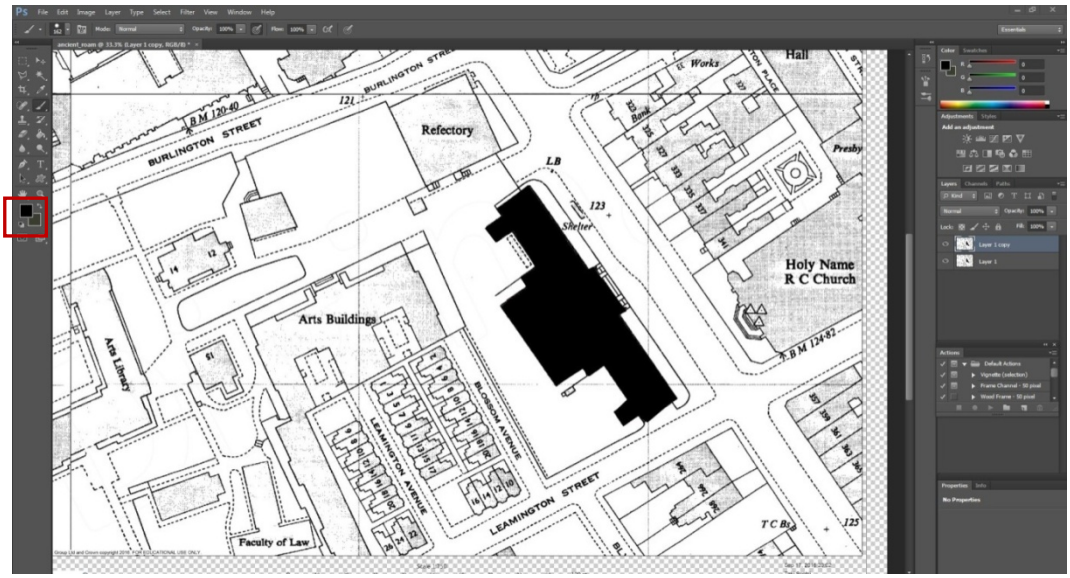
resolution images. However, it is worth to try first if the Magic Wand tool would do the job. Make sure you select Contiguous with the magic wand to select only the area you are hovering over, not the whole image. Refer to Photoshop handout for more details.

5- When you finish selection, you may want to put the new selected building in a separate layer. To do this, hit ***Ctrl+J*** to copy the new selection into a new layer.

6-Select the ***Brush*** tool, and change its size as needed (if the ***Pencil*** tool is selected press and hold on the pencil tool to show the rest of the tools, and then select the ***Brush*** tool). Alternatively, you can use the ***Paint Bucket*** tool.



7- Make sure the ***fill*** and ***stroke*** colours are black, and fill the selection area.

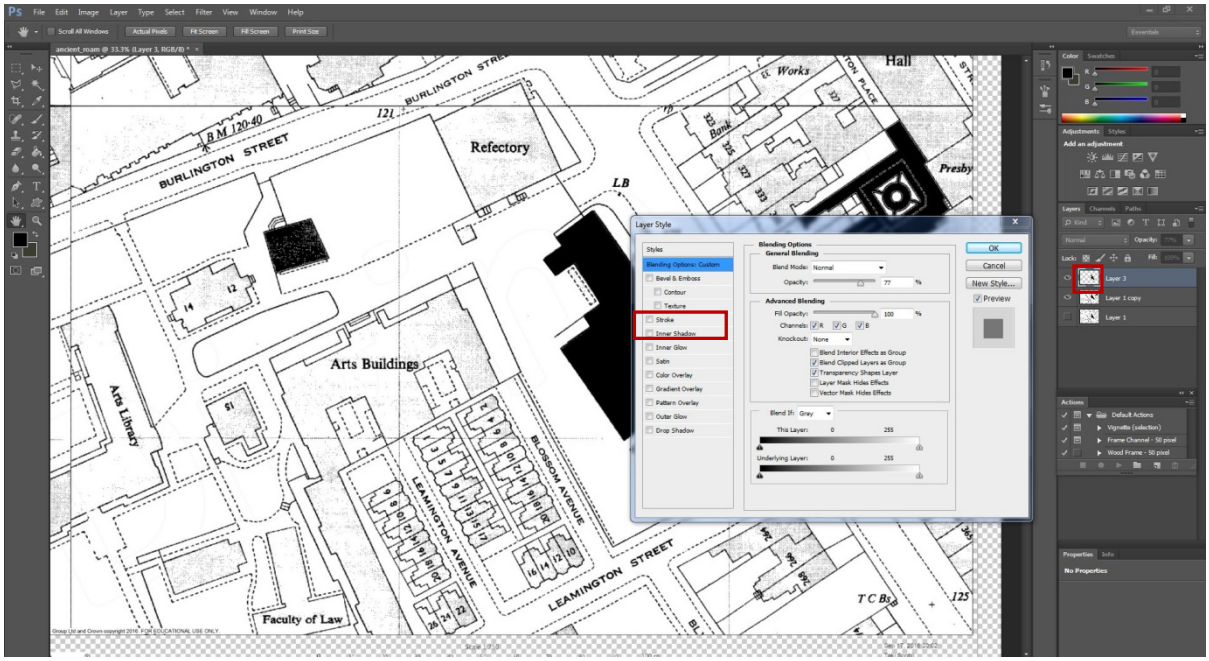


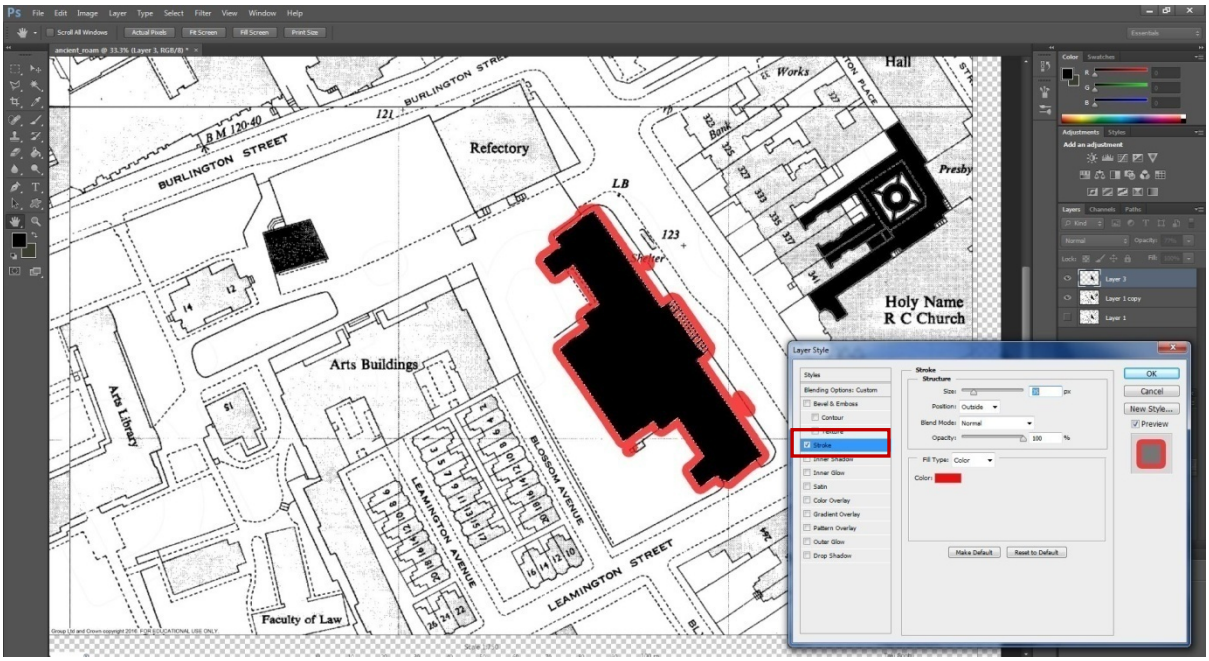
8- Turn off the rest of the layers

Unfortunately, you will need to repeat this operation for all buildings. However, remember that you don't need to be precise when drawing around the buildings.

If you want to highlight the selected building:

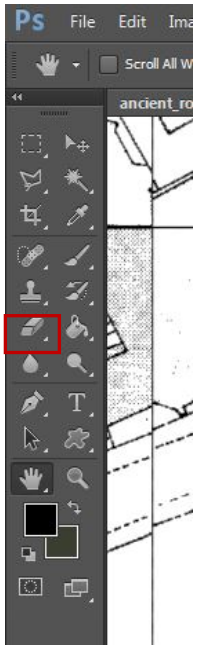
1-Double click on the third layer which contains the isolated building/Select ***Stroke***





2-Change the stroke colour to red and increase its size.

3- Clean the image with the ***Erase*** tool (if you need to deselect the object, press ***Select/ Deselect*** from the tool bar above the screen or hit Ctrl+D)**.**



Your image should look like this

Note: You can use the same techniques above to show green space, land use, building heights and other spatial analysis features. You can also do this in AI to create ''Vectorise'' the map.

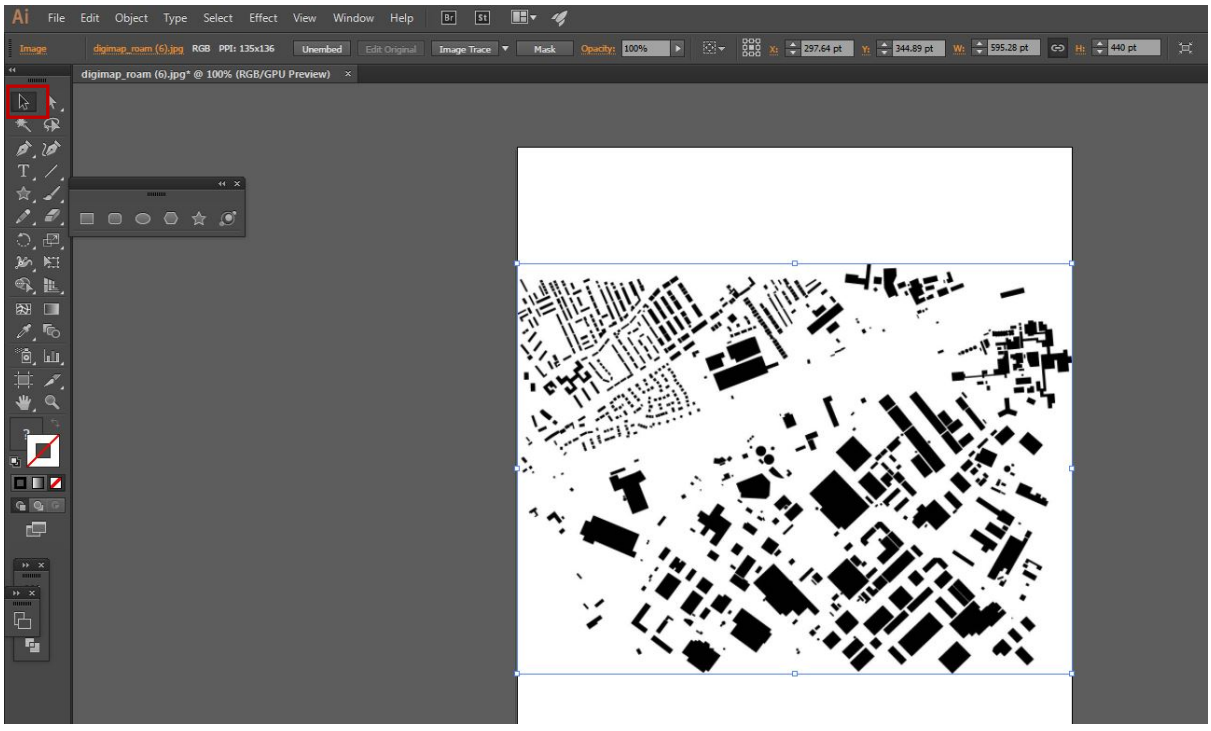
3. VECTORIZING YOUR MAP

Some raster images that do not have the flexibility to be manipulated with AI or CAD can be vectorized. This is however based on how simple the graphic is. If you have a simple raster image such as a figure ground or a small logo, these can be vectorised using a special tool called the Image Trace. It is worth trying rasterizing your historical maps first before editing them manually.

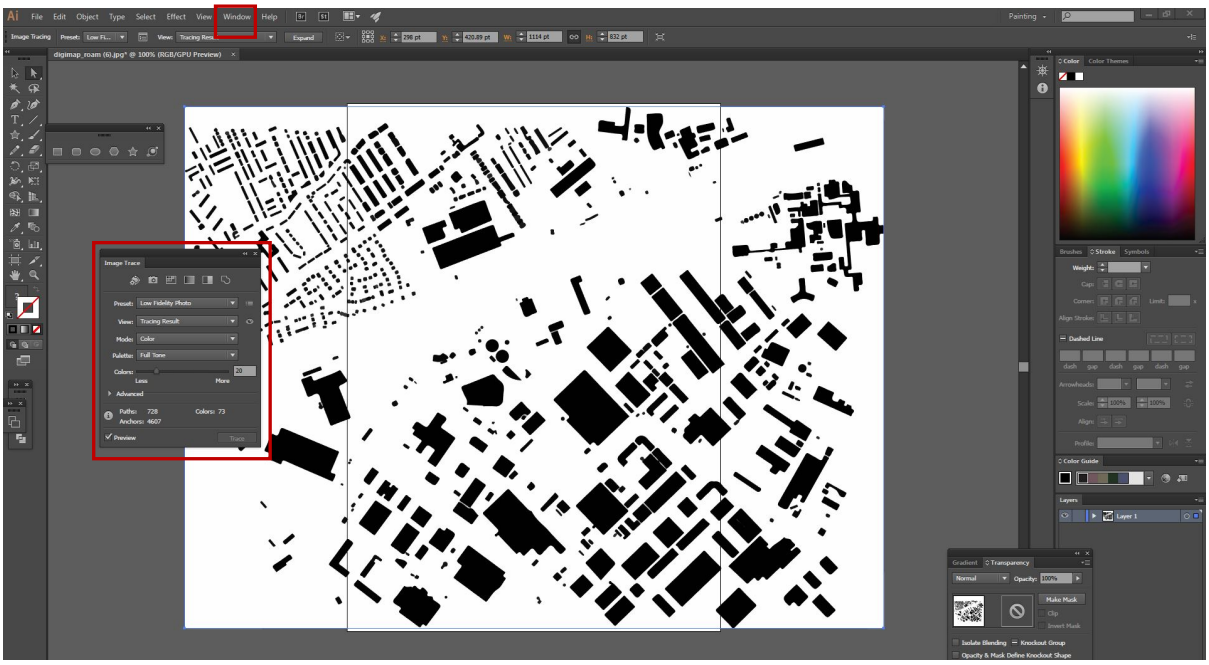
Using the Live Trace tool in AI (also called Image Trace tool in some versions). The raster image in this method should be clear and simple (such as a figure ground) for the vectorization to be sufficient. Otherwise, the operation will not be precise, the whole process might not work or even AI might crash.

1-Open AI and drag the basic raster image to AI main screen. We will use a simple figure ground raster image for this tutorial.

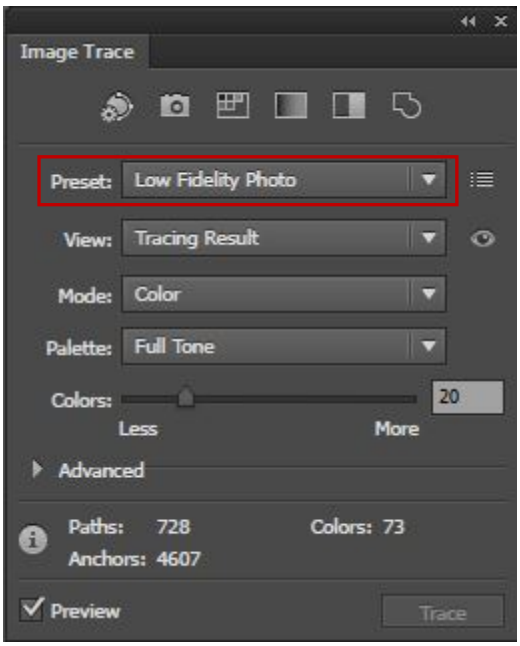
2- Select the image with the ***Selection Tool*** (V).



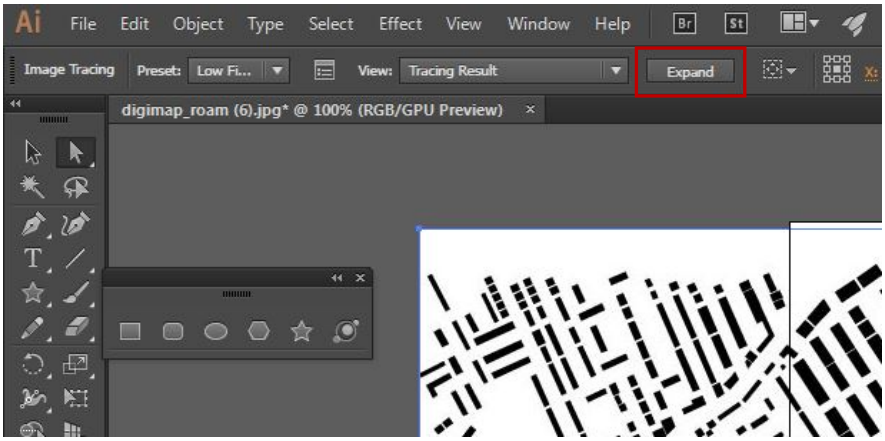
3- From ***Window*** activate the ***Image Trace*** (if not activated by default).



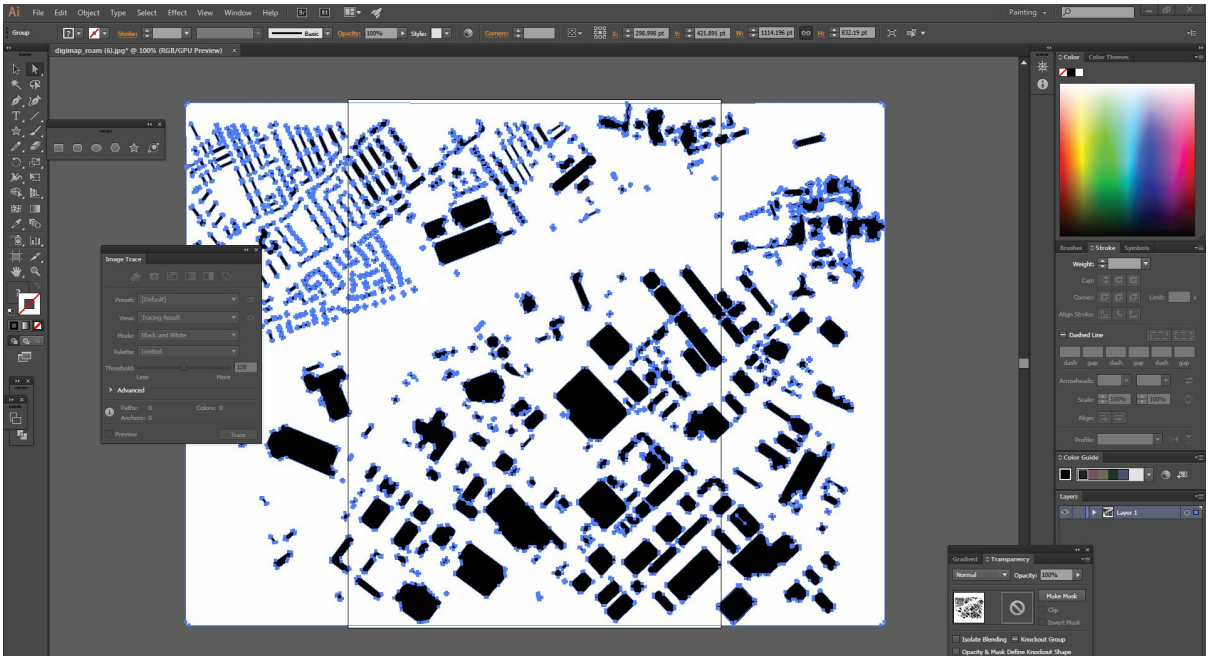
4-From the Image Trace options, change the **Present to Low Fidelity Photo** (this will make the process faster but less precise. Adequate for simple images though).



5- Wait until vectorization ends and then click on **Expand**



6-The image is now vectorized.



7-Try to edit it and play around with the ***Fill*** and ***Stroke*** of objects.